



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region II

**Subject:** POLREP #6  
Progress  
Raritan Bay Slag Site - Remedial  
A205  
Old Bridge, NJ  
Latitude: 40.4543218 Longitude: -74.2381070

**To:** Peter Lopez, ORA  
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**From:** Andrew L. Confortini, OSC

**Date:** 9/26/2017

**Reporting Period:** September 18 to September 22, 2017

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	A205	<b>Contract Number:</b>	EP-S2-15-02
<b>D.O. Number:</b>	D.O.#47/#54	<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CERCLA	<b>Response Type:</b>	
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	
<b>NPL Status:</b>	NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	2/21/2017	<b>Start Date:</b>	2/21/2017
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	NJN000206276	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>		<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

On-going release of heavy metals into adjacent soil, wetlands and water. The source of the heavy metals are related to the waste created during the recovery of lead from used batteries. The waste is primarily in the form of slag and battery casings. This waste was used as fill in the Margaret's Creek portion of the Site. The presence of this waste has been confirmed and will be removed and disposed off-site. This work is being performed as a Remedial Action pursuant to the Record of Decision (ROD) for the Site.

#### 1.1.2 Site Description

The Margaret's Creek Sector of the Raritan Bay Slag Site is approximately 47-acres of open space consisting of wetland and upland areas. Portions of the upland area is filled with slag and battery casings. The slag was brought to the Site approximately 50 years ago.

##### 1.1.2.1 Location

The Margaret's Creek Sector of the Raritan Bay Slag Site is located between the Laurence Harbor and Cliffwood Beach sections of Old Bridge Township, Middlesex County, New Jersey.

##### 1.1.2.2 Description of Threat

EPA has conducted multiple sampling events at the Site since 2008 under both the removal and remedial programs. The sampling activities included the collection of soil, sediment, water, and waste samples within the Margaret's Creek Sector. Analytical results generated by EPA indicate that significantly elevated levels of lead and other heavy metals are present in the soils and sediment. Analytical results for surface soil samples collected within the Margaret's Creek Sector were as high as: 78,000 mg/kg for lead. Representative samples of the excavated wastes generated during previous mitigation work have exceeded the Resource Conservation and Recovery Act Toxicity Characteristic Leaching Procedure limit for lead (5 mg/l).

##### 1.1.3 Preliminary Remedial Assessment/Remedial Site Inspection Results

Information pertaining to the assessment and Site inspection results can be found in the Record of Decision (ROD) and the Final Design Analysis Report (DAR) for the Site, which are available through the Remedial Project Manager and website established for this Site.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

The overall approach to this Remedial Action is to remove crushed battery casings, slag and lead-contaminated soil to prevent the direct contact threat to the public and the migration of contaminated materials to adjacent wetlands, and public recreation areas.

As part of this approach, contaminated soil, slag, and debris is being excavated and stockpiled on a 30 mil HDPE impermeable liner. Stockpiled waste material are then screened to remove slag, rocks, and debris larger than 6-inches in size. The screening process results in two waste streams; 1) waste larger than 6-inches consisting primarily of slag and 2) waste less than 6-inches consisting primarily of soil, battery casings and smaller pieces of slag. Slag waste larger than 6-inches cannot be properly stabilized and must be crushed prior to treatment.

### **2.1.2 Response Actions to Date**

Response actions completed prior to August 19, 2017 are described in previous POLREPs for the Site.

The following actions have been completed during this reporting period:

- \* Response actions in support of the Remedial Action included delineation soil sampling events for the purpose of defining the horizontal and vertical extent of lead contamination in areas of concern (AOC) identified in the DAR.
- \* On September 18, buried drum excavation activities in the western portion of AOC-H were completed. During the excavation activities, 3 additional drums were unearthed and removed.
- \* On September 19, slag and soil excavation within AOC-Q and P continued. The material excavated from the two AOCs was transported to the soil staging area for screening to remove slag material >6-inches in diameter.
- \* On September 20 and 21, 2017, 1043.74 tons of hazardous waste (D008) was transported off-site for stabilization and disposal. To date, a total of 5,105 tons of hazardous waste (<6-inches) has been transported off-site.
- \* A progress meeting with the Remedial Project Manager (RPM) was conducted on September 19, 2017.
- \* Excavation activities within AOC-F have been postponed in order to collect and analyze additional soil delineation samples to define the limits of the excavation.
- \* Perimeter air monitoring, in accordance with the Community Air Monitoring Plan (CAMP), was conducted by Weston Solutions, Inc. Weekly air monitoring summary reports are being provided to EPA and maintained on-site. No significant air exceedances were reported during the work day monitoring periods.
- \* On-site security services continued during non-working Site hours.
- \* Personal air monitoring on contractor operators and laborers began on July 20, 2017 and is being conducted by Environmental Restoration, LLC (ER). ER is EPA's emergency and rapid response services (ERRS) contractor for this project. To date, the personal air monitoring results for lead have been below the site-specific action level of 30 microgram per cubic meter (ug/m3) of air. The OSHA permissible exposure level for lead is 50 ug/m3).
- \* At this time, the project is estimated to be 30% complete.

### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

Enforcement activities are being managed by the Remedial Program.

### **2.1.4 Progress Metrics**

Stabilization of the waste containing slag less than 6-inches in diameter is being conducted by Clean Earth of New Jersey, Kearny, NJ and transported to Grows North Landfill in Morrisville, PA for disposal. See Additional Sources of Information section for waste shipping and disposal information.

## **2.2 Planning Section**

### **2.2.1 Anticipated activities for the next reporting period**

#### **2.2.1.1 Planned Response Activities**

- \* Continue excavation, segregation and stockpiling activities in AOC-Q and P.
- \* Continue perimeter air monitoring in accordance with the Community Air Monitoring Plan (CAMP).
- \* Delivery of additional supplies.
- \* Loading waste for off-site disposal.
- \* Collection of delineation and post-excavation soil samples.
- \* Complete an evaluation of all post-excavation and delineation soil sample results to insure site remediation goals have been met.
- \* Complete slag and soil excavation activities within the western portion of AOC-H.
- \* Disposal alternatives for the lead waste containing ACM have been provided to EPA. An off-site compliance check has been submitted to EPA for facility approval. Once approved, arrangements will be made to transport this material off-site for disposal.

#### **2.2.1.2 Next Steps**

- \* Preparation of the weekly air monitoring report.
- \* Conducting the weekly progress meeting with the RPM.

#### **2.2.2 Issues**

\* The sequencing of excavation activities has deviated from the Design Analysis Report (DAR). Excavation work will proceed as follows: AOC H, E, U, V, W, S, Q, P, O, F, I, G, M, N, K, L/Y2, X1, X2, X3, Z and A.

- \* On September 6, 20 representative soil samples of proposed topsoil material were collected at the

EME facility located in New Egypt, NJ. If approved for on-site use by EPA, 5,000 tons of upland topsoil and 2,000 tons of wetlands topsoil will be delivered to the Site. If the topsoil is not approved for use, a replacement source will need to be identified and sampled. The analysis and analytical review timeframe is approximately 45-days from sample collection could delay final restoration of the Site.

\* A delay has been encountered in the validation of the Radium 226 analysis performed on the bank run sand backfill material. The validation process is expected to be completed during the next reporting period. Once received, the entire validated results package will be submitted to the RPM for approval for use on the Site.

\* The off-site transportation and disposal of D008 soil and debris is being limited by the disposal vendor's permit requirements. EPA is evaluating the utilization of an alternate vendor to expedite the transportation and disposal process.

\* Significant rainfall events may affect operations if the water level in Margaret's Creek rise and back up into the low-lying portions of the Site.

## 2.3 Logistics Section

No information available at this time.

## 2.4 Finance Section

### 2.4.1 Narrative

On September 9, 2016, \$7,000,000 was allocated to the regional Emergency & Rapid Response Services (ERRS) contract for this project. On February 6, 2017, an additional \$6,550,000 was added to the existing funding for the Remedial Action.

Funding for the Removal Support Team (RST) was allocated on October 27, 2016 (\$200,000) and February 6, 2017 (\$450,000).

Project costs shown below are as of September 22, 2017.

### Estimated Costs \*

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$13,550,000.00	\$1,376,244.00	\$12,173,756.00	89.84%
RST/START	\$650,000.00	\$224,442.25	\$425,557.75	65.47%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	\$14,200,000.00	\$1,600,686.25	\$12,599,313.75	88.73%

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

None

### 2.5.2 Liaison Officer

None

### 2.5.3 Information Officer

None

## 3. Participating Entities

### 3.1 Unified Command

### 3.2 Cooperating Agencies

: New Jersey Department of Environmental Protection;  
 : Middlesex County Parks and Recreation;  
 : Middlesex County Mosquito Commission;  
 : Middlesex County Utilities Authority;  
 : Old Bridge Township Municipal Utilities Authority;  
 : Old Bridge Township Parks and Recreation.

## 4. Personnel On Site

EPA OSC  
 EPA RPM  
 ERRS Contractor (6-7 personnel)  
 RST 3 Contractor (1-2 personnel)

## 5. Definition of Terms

Not Applicable

## 6. Additional sources of information

### 6.1 Internet location of additional information/report

Not Applicable

**6.2 Reporting Schedule**

Not Applicable

**6.3 Disposal Table**

<b>Waste Stream</b>	<b>Medium</b>	<b>Manifest #</b>	<b>Quantity (tons)</b>	<b>Treatment</b>	<b>Disposal Facility</b>
Hazardous Waste	Soil/slag < 6"	017806063JJK	25.52	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806064JJK	26.41	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806065JJK	25.24	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806066JJK	26.55	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806038JJK	27.44	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806039JJK	27.93	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806040JJK	24.59	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806041JJK	25.97	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806042JJK	27.35	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806043JJK	25.61	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806044JJK	24.87	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806045JJK	26.11	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806046JJK	25.76	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806047JJK	24.13	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806048JJK	24.64	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806049JJK	25.73	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806050JJK	24.82	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806051JJK	26.14	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806052JJK	24.59	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806053JJK	24.58	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806055JJK	24.32	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806054JJK	26.7	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806056JJK	23.48	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806057JJK	26.35	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806058JJK	26.87	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806059JJK	22.98	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806060JJK	27.62	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806061JJK	27.52	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806062JJK	24.15	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806069JJK	26.54	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806067JJK	26.57	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806068JJK	26.31	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806070JJK	26.26	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806072JJK	24.97	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806071JJK	24.73	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806073JJK	25.39	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806074JJK	25.04	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806075JJK	25.91	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806076JJK	25.09	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806077JJK	25.48	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806079JJK	25.03	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806078JJK	25.78	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806080JJK	26.17	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806081JJK	28.27	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806082JJK	27.47	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806083JJK	26.61	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806084JJK	27.49	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869590JJK	24.99	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869589JJK	26.97	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869588JJK	24.61	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806087JJK	25.51	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806086JJK	25.82	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806088JJK	27.06	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806089JJK	24.94	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806090JJK	25.38	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806091JJK	27.28	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806092JJK	27.52	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806093JJK	27.24	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869587JJK	26.18	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806095JJK	23.82	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806097JJK	21.81	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806094JJK	26.22	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806096JJK	20.81	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806098JJK	25.41	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869586JJK	22.11	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869585JJK	22.48	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869559JJK	21.02	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869557JJK	22.71	Stabilization	Landfill



Hazardous Waste	Soil/slag < 6"	017869703JJK	23.85	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869704JJK	23.58	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806333JJK	23.53	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869705JJK	25.31	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869706JJK	23.6	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869707JJK	25.27	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869708JJK	24.22	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869710JJK	25.26	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869711JJK	23.37	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869712JJK	25.79	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869709JJK	23.91	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869713JJK	23.57	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869714JJK	23.42	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869593JJK	24.04	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869592JJK	24.88	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806335JJK	24.16	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806334JJK	24.59	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806336JJK	22.93	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806337JJK	24.22	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869591JJK	25.08	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806338JJK	24.59	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806339JJK	24.6	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806340JJK	24.43	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869503JJK	23.91	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869505JJK	24.89	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806347JJK	26.25	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869506JJK	23.885	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869511JJK	26.17	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869510JJK	25.4	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869502JJK	24.38	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869504JJK	27.03	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869508JJK	25.88	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869507JJK	26.64	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869509JJK	25.65	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017806346JJK	26.66	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870000JJK	26.67	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869512JJK	26.53	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869513JJK	26.85	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869514JJK	25.98	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870001JJK	23.5	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869515JJK	25.35	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869516JJK	25.92	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870002JJK	25.34	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869522JJK	25.01	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869517JJK	27.07	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869518JJK	24.35	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869519JJK	25.39	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869520JJK	24.095	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869521JJK	25.07	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869523JJK	24.605	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870003JJK	23.91	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870004JJK	23.09	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869524JJK	26.21	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869525JJK	25.84	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869526JJK	24.72	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870005JJK	25.31	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870006JJK	24.82	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869527JJK	25.72	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869528JJK	25.86	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869529JJK	26.3	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869530JJK	27.45	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017869531JJK	26.79	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870008JJK	25.02	Stabilization	Landfill
Hazardous Waste	Soil/slag < 6"	017870007JJK	24.23	Stabilization	Landfill

Total Tonnage: 5105.99

## 7. Situational Reference Materials

Not Applicable